

Effects of Constructive Training
on Performance in a Frustration Task

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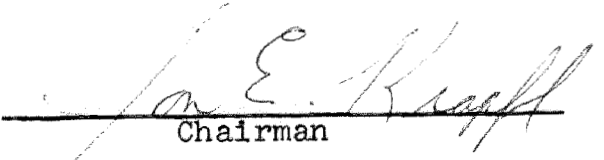
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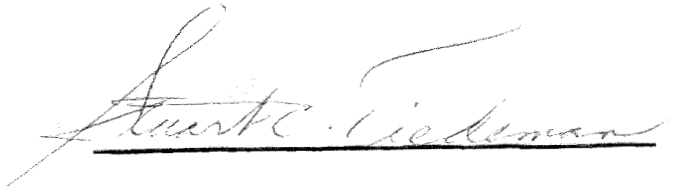
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CHAPTER I

INTRODUCTION

The field of frustration theory has been an active area of investigation for the past few decades. A great deal of information has been accumulated though, at times, the results appear contradictory. The literature contains different viewpoints concerning the effects of frustration on subsequent performance. Frustration is often referred to as disorganizing on the one hand and as an incentive to learning on the other. Some investigators (Barker, Dembo, Lewin, 1941; Dollard, Doob, Miller, Mowrer, Sears, 1939; Maier, 1949) viewed its consequences as a negative force. Much of psychoanalytic literature dealt with the desirability of eliminating frustration and its effects. Current attitudes in the field of learning have tended to emphasize the elimination of frustration or failure. There are others who have viewed frustration as a positive and necessary force in the lives of individuals and society as well. Dewey (1910) felt that a certain amount of difficulty is vital for the creative process. Toynbee (1947) saw the challenge of overcoming difficulty as an impetus to civilization building. Rosenzweig (1938), Mowrer (1938),

and others have been quite clear in their view that the experience of frustration is necessary for the health and development of the personality. According to this view, it is an indispensable and inevitable part of the socialization process. There is little doubt that frustration is a common experience in the lives of everyone. The educative process, which we must all endure, involves any number of hindrances and privations which exert pressures on the individual, but which are undeniably necessary for a social structure. Therefore, whether frustration will exert a positive or negative effect on subsequent behavior has been a major theoretical question in much of the literature.

Within the general area of frustration studies there have been several separate areas that have generated enough research to build up substantial bodies of information. What might be termed miniature behavioral theories have come about in an attempt to organize and interpret the data. A short review of the major theoretical positions follows.

Perhaps the best known theory of frustration was that proposed by the Yale group (Dollard et al., 1939). Within an early Hullian framework, they asserted that "aggression is always a consequence of frustration, and the occurrence of aggressive behavior always presupposes

the existence of frustration" (Dollard et al., 1939). Post-frustration behavior, according to the Yale group, would consist of direct aggression, displaced aggression or substitute activity. This proposition and the resulting hypotheses have led to a great deal of research. There has been ample criticism of the restriction of possible post-frustration behavior proposed by this theory, and as a result, some changes of the original theory have been adopted. The possible range of substitute activity has been considerably broadened and there is now little support for the view that aggression is the one probable response to frustration. There can be little doubt, however, that Dollard, and his co-workers, viewed aggression as the natural result of frustration and as a consequence neglected the area of substitute, positive responses to frustration.

The frustration-regression theory had its roots in Freud and, in the experimental field, is most often associated with Barker, Dembo and Lewin (1941). They, too, saw frustration as having a negative effect on subsequent behavior. It was their view that this negative effect was due to regression. In the study by Barker, et. al. (1941) children were frustrated by taking from them a set of very attractive toys. The behavior of the children was then evaluated when they were provided

with less attractive toys. The experimenters concluded that the less constructive play evidenced by the subjects was the result of regression. Certainly regression is one possible result of frustration, but because frustration-regression theory restricts itself to a prediction of change in behavior in only one direction, it also is inadequate as a general theory of frustration. Recent research on frustration and regression has focused on instrumental act regression.

Maier (1949) has conducted a major portion of the research done on severe frustration. He felt that frustration-instigated behavior could not be explained by the principles of learning theory. According to Maier (1949), behavior produced by frustration is non-motivated, non-goal seeking behavior. In Maier's experiments, animals were forced to respond to insoluble problem situations. He explained the fixated behavior that occurred by theorizing that the frustration threshold of the organism had been passed and the organism was therefore unable to take advantage of a learning situation. Critics of Maier's work have pointed out that his experimental data were explainable in terms of avoidance behavior (Farber, 1948, 1953); utilizing learning theory, they maintained that there was no need to introduce a concept of non-motivated

behavior.

Marx and Lawson (1958) have characterized three recent treatments of frustration as "two-factor" theories of frustration. "The basic idea is that the antecedent condition called 'frustration' or 'frustration-inducing' produces one or both of two results (a) an increase in the organism's drive level and (b) the arousal of unique stimulus-response connections, either learned or unlearned (p. 403)." One of the two factor theories, proposed by Brown and Farber (1951), viewed frustration within a Hullian framework. They define frustration as a higher-order intervening variable: the ratio between incompatible reaction potentials. Their main focus has been an attempt to integrate current views on frustration into a more general behavior theory.

Amsel (1958) has also employed Hull's framework although emphasizing different constructs. He defined frustration as the blocking of a goal response. The effect of this blocking on subsequent behavior was conceptualized in terms of an "anticipatory frustration reaction" and is related to Hull's "anticipatory goal reaction." Amsel and Roussel (1952) provided support for the hypothesis that frustration acts as an irrelevant drive which summates with other relevant drives to influence behavior. Using rats, they established a running response to the maximum level under hunger drive, then

added frustration and found it resulted in higher running speed.

Child and Waterhouse (1953), the third of the two-factor theorists, also defined frustration as the blocking of a goal response. They placed most emphasis upon the arousal of "interfering responses". Child and Waterhouse (1953) organized their discussion on frustration in terms of its effect on the quality of performance. The amount of deterioration in quality of performance from one activity to another depends on the extent to which frustration leads to responses which interfere with the responses of the second activity.

All three of the two-factor theories include the view that frustration may have both drive and cue properties. For example, Yates (1962) maintains that

"frustration may increase the general level of motivation by functioning as an irrelevant drive in summing with relevant drives of that particular situation. Compared with other drives, however, frustration is unique in that it depends upon the arousal of competitive tendencies rather than upon conditions of deprivation, and with respect to the events that result in its diminution. Secondly--frustration may serve as an internal cue or stimulus. As such, frustration might serve as a source of new response patterns which will be carried over into other situations in which the subject is frustrated (Yates, 1962, p. 182)."

The varying definitions and terminology which are employed result in a basic problem in synthesizing the

results of previous research. Yates (1962) has written of the need to limit definitions in the area. In the past, almost any learning situation, any situation involving an attainment of a goal, has been seen as constituting a frustrating situation until the goal is reached. This definition is so broad as to be of little use. Yates cites the fact that it is necessary to make a distinction between a frustrating situation and a frustrated organism, "it should be clear that an organism placed in a frustrating situation need not necessarily be in a state of frustration any more than an organism placed in a learning situation necessarily learns (1962, p. 175)." Another source of confusion has been the failure to distinguish between responses indicating a state of frustration in the organism (frustration response) and responses to that state of frustration (responses to frustration). Yates suggests that the term, "frustration situation," be limited by agreement to those situations in which an organism is prevented by a physical barrier from attaining a physical goal by the performance of responses which previously led to the attainment of that goal (1962, p. 176). He recognizes that eventually any complex theory must take account of internalized goals and barriers, but that any present research would be better to restrict itself to the cited limitations and definitions.

There has been some confusion concerning the relationship between frustration and conflict. In the past the terms have often been used interchangeably. In Yates explanation, he uses the frustration-aggression hypothesis as an example,

"An organism is blocked from the attainment of a familiar goal and experiences frustration. A goal potential summates with the frustration potential to produce increased striving towards the goal and this increased striving may take the form of aggression (e.g. trying to remove the physical barrier). If this increased striving is severely punished, however, the organism will develop an avoidance potential and when placed in similar situations or the same situation again will be in a state of conflict (1962, p. 181)."

Conflict, then, is not an inevitable consequence of frustration. Frustration is an approach tendency and conflict occurs as the result of both approach and avoidance tendencies. By confusing frustration and conflict, theorists have again limited their view of possible responses to frustration. By including the concept of conflict in a frustration situation the quality of performance would necessarily be lowered, and it is evident from Yates review that conflict is not an integral part of a frustration paradigm.

Given the pervasiveness of the experiencing of frustration and the fact that many view its effects as generally negative, it is somewhat surprising that so

little research has been concerned with attempts to modify and improve responses to its occurrence. Although most research has been concerned with simply observing the responses of an organism to a frustrating situation, with innumerable variations in procedure, some theorists have recognized the effect which learning and training may have on responses to frustration. Even Sears (1941), one of the original frustration-aggression theorists, admitted that there was little support for the view that there is one dominant, unlearned reaction to frustration. Zander (1944) found that substitute responses are much more frequent and at least as intense as aggressive reactions to frustration.. "Are not therefore 'substitute' responses and their interrelations likely to be a more productive area of research in human behavior on their own account than is the frustration-aggression hypothesis (p. 29)?" Zander sees the individual reactions to frustration, obtained in his study, as a result of individualized habits of meeting frustration. Sears (1941) cites experimenters who have shown the influence of reinforcement on the frequency of occurrence of substitute responses. Even though Maier (1959) sees frustration behavior as non-motivated, he too speaks of the effect of previous learning:

"A trained boxer is more likely to hit with a skilled jab than a haymaker, this factor

perhaps would not be crucial for testing frustration theory because learning is regarded as an important selector of behavior in most theories. Frustration theory makes learning a less important factor, however; and in this respect it might become an issue for a critical experiment (1959, p. 204)."

Waterhouse and Child (1953), in an article concerning the effect of frustration on the quality of performance, made several references to the effect of learning and/or training.

"If heredity, nursery school training, institutionalization, intellectual character of the home environment and so forth, influence general intelligence, they should influence the likelihood that the frustrated person will make a novel response of high quality (p. 134)." "The individual's habits of responding to drive states--in particular to the drive states likely to be invoked by frustration--thus are crucial in determining the effect of frustration upon quality of performance in the original activity (p. 137)."

Waterhouse and Child make perhaps the most optimistic statement concerning the ultimate effect of training,

"A typical person in our society is likely to have well-established tendencies to react to strong emotions with various responses: such as withdrawal, close attention to the experience, worrying, expressive behavior--which all tend to interfere with efficient pursuit of the original goal oriented activity. We would expect that persons with a different habit structure might react to the same emotional states in themselves with a higher rather than a lower quality of performance. This appears to be the assumption underlying military training and so forth..., the assumption that training modifies

the way a person responds to an intense emotional state, and indeed can modify it so radically that intense emotion may come to have an organizing rather than a disorganizing effect on behavior (p. 137)."

Previous research attempts to effect the more positive and constructive reaction to frustration have been meager. Several theorists (Child, Waterhouse, 1953; Davitz, 1952; Hull, 1934) indicate that post-frustration behavior will be a function of the organism's hierarchy of responses related to the particular situation, but few have attempted to influence the ordering of this hierarchy. It is recognized (Davitz, 1952) that the hierarchy of response is not the only determining factor in post-frustration behavior. "The intensity of the original frustration drive and the resultant emotional response, the degree to which the original drive-evoking situation continues to impinge upon the organism, and the degree of active punishment involved in the frustrating circumstances may be several other factors involved in this complex process (p. 310)."

A recent study (Shipman, 1960) was concerned with the effect of repeated mild-to-moderate frustration experience on frustration tolerance. She concluded that those subjects exposed to mild-to-moderate frustrating experiences had increased tolerance for that frustration but that the frustration tolerance failed to generalize.

Shipman's study does indicate that repeated doses of mild frustration might very well have a place in any training designed to raise the level of frustration tolerance.

Davitz (1952) trained one group of subjects aggressively before frustration and another group was trained to act constructively. Davitz hoped to develop response tendencies related to the physical situation in which they had been trained. He concluded that the constructively trained subjects behaved more constructively after frustration than the aggressively trained subjects. The constructive training consisted of discouraging aggressive behavior, and encouraging and emphasizing constructive behavior exhibited by subjects as they worked on a project.

Giebink, Stover, and Fahl (1968) used direct verbal instruction in the guise of a table game to increase adaptive behavior. The direct instructional approach was found to increase the number of alternative responses the children could verbalize to a frustration situation and led to later overt changes in behavior. Their results indicate that perhaps a specific verbal approach might be of use in modifying responses to frustration. Keister and Updegraff (1938), attempted to determine responses of children when faced with failure.

They then devised a training program for those children who exhibited a certain number of undesirable responses. The program involved individualized training with exposure to more and more difficult tasks. The subjects experienced both encouragement and success although the two variables were not manipulated systematically. It was hoped that the child would learn to persist and refrain from dependency responses. The results indicate that it is possible to modify the behavior of children in the face of their own failure. The experimental conditions were not termed frustration situations but were quite similar to many of those used in so-called frustration experiments. Grosslight and Child (1947) were able to increase the persistence of subjects in the face of frustration. There was some evidence that the increased persistence made it more likely that novel or creative responses would occur. Maier (1949) has theorized that present rewards may serve to prevent future frustration. According to Maier it is more important to give a child a treat before going to the dentist.

Although the literature is sparse in attempts to influence more constructive responses to frustrating situations, the cited studies do indicate the feasibility of such an attempt. If, as previous theorists have suggested (Child, Waterhouse, 1953; Davitz, 1952; Hull,

1934) the ordering of the response hierarchy in a frustration situation can be modified by prior training, and if frustration can serve as a cue or stimulus to release that trained response, as the two-factor theorists have suggested, it would appear appropriate to determine the nature of pre-frustration experiences which are more likely to lead to adaptive, persistent responses when the subject is faced with a frustrating experience.

Mildly-frustrating experiences (Shipman), reward (Maier), and direct verbal instruction (Keister, Updegraff, Giebink, Stover and Fahl) have all been proposed as effective behavior modifiers in the face of frustration.

For purposes of this study, the definition of a frustrating situation suggested by Yates will be adopted. Weir (1964) has discussed developmental changes in problem solving strategies and has concluded that persistence is the best measure for frustration tolerance at the preschool level. The principal focus of the present study was the comparison of the effectiveness of training methods designed to foster adaptive responses to frustration.

The specific hypotheses examined are these:

- 1) Subjects receiving training will persist longer at a frustration task than those who receive no training.

- 2) Subjects who are reinforced for adaptive responses will persist longer at the frustration task than subjects exposed to mild frustration.

CHAPTER II

METHOD

Subjects

The subjects were 30 pre-school children, ages four and five. All subjects attended Sabin School Headstart Program, Des Moines, Iowa. The subjects were randomly assigned to one of the two experimental conditions and the control condition. Since the children were chosen randomly from the total school population, there was contact following the training sessions among the children. Group A was trained first to prevent Group B from raising any false expectations concerning the physical reward which they alone received. Due to absences, a total of 28 children completed all sessions. Of the 28, there were 9 in Group A, 10 in Group B and 9 in Group C. Three additional children were used in a pilot study to establish interobserver consensus and reliability. These children were exposed to the frustration task only.

Design

The experimental procedure was conducted in four sessions, three training sessions, and one session of exposure to the frustration task. All training sessions

and the frustration task were five minutes in length. The training was given on three successive school days with exposure to the frustration task on the fourth day. Each child was taken individually to the experimental room where both the training and frustration task were held. The training groups worked on the same type of tasks in the same order. The first training session involved simple paper folding of a paper boat and a shovel. The initial verbal instructions to the children were as follows: "We are going to do some paper folding; you watch what I do and fold your paper exactly the same way." The experimenter continued to fold the objects slowly throughout the session.

The second training task session used puzzle construction. The puzzles were taken from the Weschler Intelligence Scale for Children (WISC) Object Assembly Test. The training groups received the following instructions, "I have some puzzles for you to put together." The experimenter gave the child the first puzzle and said, "You put this together." When the child finished the first puzzle or stopped working on it because he seemed to think he had completed it correctly, the experimenter put it away and gave the child the next puzzle saying, "Now put this one together."

The third training session consisted of sorting

colored squares into three different sections of a box. Verbal instructions were as follows: "Look, _____, here is a pile of squares that are three different colors." "I want you to put them in this box, putting a different color in each section." The experimenter put one color into each section making sure the child understood the instructions. The subject was then told, "Make sure you sort them all."

Group A's training sessions were arranged to expose them to mildly-frustrating tasks. In the first session Ss were given paper of the wrong size, which made it impossible for them to complete the object demonstrated by the experimenter. In the second session these subjects were given the WISC horse and face puzzles, in that order. It was previously determined that it was difficult for children of this age to complete both of these puzzles in the five minute period. In the color-sort task Group A was given more squares than was possible for them to sort in the time allotted.

Group B received verbal encouragement, social approval and a physical reward in all training sessions. Statements such as "that's good", "you're doing very well", and "keep trying" were used. Subjects in Group B were given M & M candies at regular intervals, one per minute, as long as they continued to work. The paper

folding was within their capabilities when given the correct materials. In the puzzle construction session, Group B was given the man and horse puzzles, which are less difficult than those provided to Group A. This group was given 10 squares of each color, which they could easily sort in the time period.

Group C, the control group, received no training, but met with the experimenter for three consecutive sessions before the frustration task to control for exposure to the experimenter. The control group colored a picture, played with clay, and worked with a construction toy. The materials were provided with no instruction or conversation.

The frustration task was an approximation of the weighted box test devised by Updegraff and Kiester (1938). The apparatus was a box 30" X 24" X 20". Ninety pounds of sand were enclosed in a false top. The box was inverted and several bright toys placed under it. The subject was brought to the experimental room and instructed as follows: "There are some toys under this box, lift the box and you may play with them." During the spoken instructions the experimenter lifted the box to about a 90 degree angle to expose the toys underneath. The child's behavior was observed and recorded. The observation period was five minutes in length. Following

this period, the experimenter helped the child obtain a toy and allowed him to play with it for a few minutes to establish a good relationship before returning the child to the classroom. It was hoped that the choice of frustration task would satisfy several criteria:

(a) it had to be a natural situation, so that the difficulty did not appear obviously imposed, (b) it had to be simple to grasp, so that the child would be able to understand what was required for solution and could perceive that he was not succeeding, (c) the situation could not be of such a nature as to make the child feel he must respond and (d) it had to be of interest to the pre-school child.

Group A's experience with mildly-frustrating tasks was included to determine whether such exposure did raise the level of frustration tolerance and thereby increase their persistence times at the frustration task. Group B's success, reward and encouraging verbal instruction were designed to determine whether these experiences proved more effective in increasing persistence times. Group C was included as an exposure control.

Measures

Two observers noted the child's reactions, while E recorded the amount of time during which the child

engaged in attempts to reach the toys. The two observers rated blindly and both were present during any of the frustration tasks. The observers were seated at desks approximately 12 feet away from the weighted box. They had no contact with the S and if the S inquired about them, he was told that they were using the room for some work they had to do. The observers recorded responses to frustration. Using a checklist, shown in Table 1, and a stop watch, a time sampling procedure was used to obtain a record of the child's actions and attempts to solve the problem. The judges made a notation every fifteen seconds. The child was recorded as persisting provided that his attention was directed toward the box or he was attempting to lift or move it. Regression was recorded if S was not working at the task and if such characteristics as behavioral simplification (less variety), decrease in areas of interest and activity (came and stood by experimenter), decrease in organization of the person (crying and whining), and a decrease in realism (fantasizing) were exhibited. In addition to the record kept by the judges, the experimenter recorded verbal comments of Ss and the total time that he worked at the task. After explaining the frustration task, the experimenter sat at a desk 5 feet from the box and appeared to engage in paper work. This provided a vantage point

from which the child was easily observed.

CHAPTER III

RESULTS

The dependent variable used in this study, the child's reaction to frustration, was measured in terms of persistence. The records kept by the experimenter and the observers provided two separate measures of persistence. The first was a duration measure kept by the experimenter. The analysis of variance run on these data did not support the hypotheses ($F < 1$).

TABLE I

Analysis of Variance of
Duration Measure Scores

Source	SS	df	MS	F
Between	176,528	2	83,264	<1
Within	192,472	22	87,487	
Total	369,000	24		

The second persistence measure was a time sampling procedure recorded by the observers on a checklist (see Appendix A). A Pearson Product Moment Correlation Coefficient was computed on the observers' scores. The interrater reliability of the scores was .99. The analysis

of variance run on these data also resulted in an $F < 1$. The hypothesis that Ss receiving training will persist longer at a frustration task than those who receive no training, and the hypothesis that Ss who are reinforced for adaptive responses will persist longer at the frustration task than subjects exposed to mild frustration, were not supported.

TABLE II
Analysis of Variance of
Time Sampling Scores

Source	SS	df	MS	F
Between	29.45	2	14.725	<1
Within	1,263.05	22	57.41	
Total	1,292.5	24		

The mean persistence times in seconds for each group were as follows: 106.88 for the group trained with reward, 105.5 for the control group and 57.2 for the group trained using mild frustration. These means seem to indicate an interesting direction; however, the variability within the groups was such as to render the results insignificant.

Six Ss were hesitant to come with the experimenter for training and required a longer time to establish

rapport. All six had mean persistence times of less than forty seconds and two of the Ss made no attempt to move the box at all. This observation seems to support the findings of other studies that have related frustration tolerance to over-all adjustment (Block and Martin, 1955; Zander, 1944).

No instance of aggressive behavior was recorded on the checklist. Only three Ss exhibited what was termed regressive behavior for over fifty percent of the task time.

Interestingly, Ss who made no verbalizations during the frustration task exhibited longer persistence times. Those Ss who spoke during the task had a mean persistence time of sixty-five seconds, as opposed to one hundred and eighty two seconds for those who were silent. The experimenter is unaware of any studies that have explored the relationship between persistence and verbalizations. Non-persistent and persistent subjects did not differ in degree of agitated behavior resulting from frustration.

Three Ss, one in each group, were able to solve the problem in the time allotted, and therefore no measure to determine the amount of time they would have persisted at the task was possible. These three Ss were not included in the statistical analysis.

CHAPTER IV

DISCUSSION

The major consideration of this study was to compare the effectiveness of training methods designed to increase frustration tolerance. The results, unfortunately, do not allow a judgment concerning the relative merits of the different training approaches. The possibility that a person could have a generalized habit of responding in a particular way to frustration, and the possibility that this habit could be affected by training still seems reasonable. Several of the changes in method or design that might have led to significant results were noted during the conduct of the study.

A study which fails to produce significant findings leads to close re-examination of theory and procedure and recommended changes. It appears, in retrospect, that the training sessions were of insufficient length and frequency to offset the accumulation of other experiences. Frustration is universal and inescapable, and responses to it are learned continuously, beginning very early in life. One possible alteration in procedure would have been to keep the training exactly as designed, but to have increased,

by a considerable amount, the time spent in training.

A desirable addition to the present study might have been the inclusion of an additional group whose training involved tasks that were graded in difficulty. This would have allowed S to experience success at first and then require perseverance in order to succeed. With such a procedure, the experimenter could have been more specific concerning what behavior was rewarded. A group rewarded for persevering when faced with mild frustration would have been a combination of the theoretical approaches of the other two groups. If this group had significantly longer persistence times, it might be argued that the experiencing of some frustration is beneficial, but only if the right response appears and is reinforced.

The procedural aspects of the research design worked out quite adequately. The training tasks proved to be adaptable to the varying results desired. It was not difficult to manipulate the circumstances to insure either success or failure on the part of each S. The training tasks proved very suitable in terms of level of difficulty for the use of social reinforcement to encourage persistence as opposed to withdrawal. The types of tasks used made comments by E appear both

natural and appropriate. The following qualitative descriptions of the reactions of selected Ss are examples of those elicited by the training tasks using the WISC puzzles. These by no means indicate the entire range of responses but they will perhaps be informative as to the child's perceptions of the experience. The responses of the two experimental groups varied in a quantitative way. Typical of the majority of comments made by Ss in the reward training group are the following: "Oh, this is a horse." "Mom's gonna get me a horse." "You commin tomorrow?" "I got puzzles." "You got more puzzles?" "Hey, where's this go?" "You put this in." "Hey, here it goes." "Push, push, push, push." "You got some more?" "My baby couldn't do that." The following comments represent the majority of comments made by Ss trained using mild frustration. "I don't like these puzzles." "Do we have to do these tomorrow?" "I may not want to come back with you." "I ain't fix these right." "I can't." "This not like it should be, is it?" "Oh darn, a mess."

The frustration task adequately fulfilled the criteria listed in the design. The majority of the children attempted to move the box; only two children made no attempt at all. The fact that E could easily

observe and record the behavior of the Ss without becoming involved was an additional advantage.

In the Updegraff and Keister study (1938), for which the weighted box test was first devised, it was noted that the children verbalized a great deal during the task. This was not the case in the present experiment. No child made more than three comments during the entire five-minute period. Several possible explanations present themselves: (a) the experimenter appeared to be involved in paper work during the task, (b) the observers were present for the first time, although they were ostensibly outside of the actual experimental area, and (c) there was a difference in backgrounds between the children used in the two studies. In the Updegraff and Keister study (1938), Ss were obtained from a university based nursery school and were, for the most part, children of professional parents. In the present study, Ss had qualified for their school because of certain deprivations in their socio-economic background. Only two children requested help during the frustration task. This was perhaps related to the overall low level of verbalizations. This study did not elicit the intense emotional behavior exhibited by some Ss in other experiments, (Barker, Dembo, Lewin, 1941) (Updegraff and Keister, 1943). The behavior of Ss in

the frustration task was relatively consistent in this respect. There was little non-functional behavior and no destructive behavior observed. Again, there are several explanations which could account for such a finding. Because of their low socio-economic background, these subjects may have had a low reward expectancy and, therefore, non-reward did not prove as frustrating. Also, in this study, the experimenter, by attitude and instructions, implied that the S could solve the problem but S never experienced success. Relative to this point, more emotional behavior has been observed in studies in which Ss had experienced success before being frustrated (Sherman and Jost, 1932), than those studies in which the E implied that the S should succeed, but they experienced only failure (Thorndike and Woodyard, 1934). Most theorists hold that the emotional aspects of frustration do not become dominant until the range of adaptive responses has been exhausted. It might be argued that in the studies in which S experienced success at some point in the design sequence, certain alternatives had been eliminated in learning the correct response. Therefore, when the previously successful response failed, there remained fewer adaptive responses to try and emotional behavior occurred more quickly. This particular question was not considered

in the original design and perhaps the frustration period was not long enough to eliminate the Ss range of adaptive responses.

This study certainly showed no one specific, dominant reaction to frustration as some theories have indicated. Wide inter-group variability was reflected in persistence times and other behavior as well. It is possible that frustration tensions work themselves out so variously that only with massed data could tendencies be observed. Personality factors and the general nature of the particular sample are probably quite important in such variability. Mental age (Stevenson and Ziegler, 1958), and chronological age, (Ryan and Moffitt, 1966) (Weir, 1962), have been cited in the past as variables having an effect on reward expectancy. Bailer and Cromwell (1965) write of "failure avoiders" and "success strivers." Thompson and Honnicutt (1944), found that "introverts" on the Pinter Scale showed more improvement when praised than when blamed, while "extroverts" responded with more effort to blame than to praise.

Future research directed toward individualized responses to frustration and the nature and origins of wide inter-group variability would be informative. Longitudinal studies appear to be a promising approach.

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FRUSTRATION TASK

Date _____

Child's Name _____ Age _____

Observer _____ Group _____

TIME INTERVAL

1. Aggress. Behav.
 - a. phys. agg. toward experimenter
 - b. phys. agg. toward self
 - c. verbal agg. toward experimenter
2. Stops Working Toward Goal
 - a. attempts to leave room
 - b. directs atten. to something else
3. Works on Task
 - a. attempts to move box
 - b. atten. directed toward box
4. Regress. Behav.
 - a. cries
 - b. ignores box, but does not become involved elsewhere
 - c. simplified behav.
 - d. fantasizing